## WHAT IS CLAIMED IS:

 A porphyrin compound represented by general formula (A):

$$R^{1}$$
 $N$ 
 $N$ 
 $N$ 
 $N$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{4}$ 
 $R^{2}CON$ 
 $R^{3}$ 

where  $R^1$  denotes a  $C_1$  -  $C_{18}$  alkyloxy group, a  $C_1$  -  $C_{18}$  alkylamino group, or a peptide having 1 - 6  $\alpha$ -amino acids and having a hydroxyl group, a benzyl oxy group or a methoxy group at the C-terminal;  $R^2$  denotes a residual group after removal of an amino group and a carboxyl group from an  $\alpha$ -amino acid;  $R^3$  denotes a  $C_1$  -  $C_{18}$  alkyloxy group, a  $C_1$  -  $C_{18}$  alkylamino group, or a peptide having 1 - 6  $\alpha$ -amino acids and having a hydroxyl group, a benzyloxy group or a methoxy group at the C-terminal; each  $R^4$  and each  $R^5$  denote either a methyl group, or a hydrogen atom, a vinyl group, an ethyl group, a 1-methoxyethyl group, a 1-bromoethyl group or a formyl group, wherein, where each  $R^4$  denotes

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a methyl group, each R<sup>5</sup> denotes a hydrogen atom, a vinyl group, an ethyl group, a 1-methoxyethyl group, 1-bromoethyl group or a formyl group, and where each R<sup>4</sup> denotes a hydrogen atom, a vinyl group, an ethyl group, a 1-methoxyethyl group, a 1-bromoethyl group or a formyl group, each R<sup>5</sup> denotes a methyl group; M denotes two hydrogen atoms bonded to the two pyrrole nitrogen atoms or an ion of a transition metal belonging to the fourth to fifth periods in the Periodic Table; X<sup>-</sup> denotes a halogen ion that is present where M denotes the transition metal ion; and n which denotes the number of X is the number obtained by subtracting 2 from the valency of the transition metal ion.

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- 2. The porphyrin compound according to claim 1, wherein each  $\mathbb{R}^4$  denotes a hydrogen atom, a vinyl group, an ethyl group, a 1-methoxy ethyl group, a 1-bromo ethyl group or a formyl group, and each  $\mathbb{R}^5$  denotes a methyl group.
- 3. The porphyrin compound according to claim 1, wherein each  $\mathbb{R}^4$  denotes a methyl group, and each  $\mathbb{R}^5$  denotes a vinyl group, an ethyl group, a 1-methoxy ethyl group, a 1-bromo ethyl group or a formyl group.
  - 4. The porphyrin compound according to claim 1, wherein M denotes Fe or Co.
- 5. The porphyrin compound according to claim 4, wherein Fe is divalent or trivalent.
  - 6. The porphyrin compound according to claim 4,

wherein Co is divalent.

- 7. A porphyrin metal complex-albumin inclusion compound having the porphyrin compound defined in claim 4 included in albumin.
- 8. An artificial oxygen carrier comprising the porphyrin metal complex-albumin inclusion compound defined in claim 7 as an active component.